Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 to 10. (Canceled).

11. (Currently Amended) A simulation system for computer-implemented simulation and verification of a control system under development, the control system comprising a target hardware and application software running on the target hardware, the simulation system comprising:

hardware implementing a generic model animation interface passing data from the target hardware to a modeling tool for animating a model of the control system and an in-model calibration interface passing data from the modeling tool to the application software, the model animation interface and the in-model calibration interface adapted to use using measurement and calibration technologies [[with]] in a host-target architecture, to communicate with a measurement and calibration interface on the target hardware thereby forming a link between the application software on the target hardware and a host of the host-target architecture a host including at least one respective modeling tool and on target software of the control system is executed.

12. (Currently Amended) The system according to claim [[1]] 11, further comprising a target server adapted to connect the modeling tool with [[a]] the target hardware.

13. (Currently Amended) The system according to claim [[2]] 12, wherein the target server includes a protocol driver of a communication protocol adapted for communication with the target.

14. (Currently Amended) The system according to claim [[1]] 11, further comprising a plurality of simulation processes with corresponding memory and interface modules, the modules including distinct memory locations adapted for inter-module communication.

15. (Currently Amended) The system according to claim [[4]] 14, wherein simulation is performed by execution of a control system simulation model, the simulation model

including a plurality of sub-models <u>each</u> being performed on one of the plurality of modules respectively.

16. (Currently Amended) The system according to claim [[4]] <u>14</u>, wherein at least some of the modules are dynamically reconfigurable for communication via distinct memory locations.

17. (Currently Amended) A host of a simulation system for computer-implemented simulation and verification of a control system under development, <u>the control system comprising a target hardware and application software running on the target hardware, the host</u> comprising:

<u>hardware implmenting</u> a generic model animation <u>interface passing data from the target hardware to a modeling tool for animating a model of the control system</u> and <u>an</u> in-model calibration interface <u>passing data from the modeling tool to the application software, the model animation interface and the in-model calibration interface</u> <s>adapted to use</s> <u>using</u> measurement and calibration technologies [[for]] <u>in</u> a host-target architecture, <u>to communicate with a measurement and calibration interface on the target hardware forming a link between the application software on the target hardware and a host of the host-target architecture,</u> the host including at least one respective modeling tool and a target server <u>adapted</u> to connect the modeling tool with [[a]] <u>the</u> target <u>hardware</u>.

18. (Currently Amended) A method, comprising:
<s>computer-implemented</s> simulating and verifying a control system under development, <u>the control system comprising a target hardware and application software running on the target hardware, the simulating and verifying performed</u> by [[of]] a simulation system including a generic model animation <u>interface passing data from the target hardware to a modeling tool for animating a model of the control system</u> and <u>an</u> in-model calibration interface <u>passing data from the modeling tool to the application software, the model animation interface and the in-model calibration interface</u> <s>adapted to use</s> <u>using</u> measurement and calibration technologies [[with]] <u>in</u> a host-target architecture, <u>to communicate with a measurement and calibration interface on the target hardware forming a link between the application software on the target hardware and a host of the host-target architecture,</u> [[a]] <u>the</u> host including at least one respective modeling tool and <s>on-target software of the control</s>

~~system is executed~~ a target server adapted to connect the modeling tool with the target hardware.

19. (Currently Amended) A computer-readable storage medium including a set of instructions executable by a ~~computer~~ processor, the set of instructions, when executed, causing the processor to perform a method of simulating and verifying a control system under development, the method comprising:

~~computer-implemented~~ simulating and verifying a control system under development by [[of]] a simulation system;

wherein:

the control system comprises a target hardware and application software running on the target hardware; and

the simulation system includes ~~including~~ a generic model animation interface passing data during the simulating and verifying from the target hardware to a modeling tool for animating a model of the control system and an in-model calibration interface passing data during the simulating and verifying from the modeling tool to the application software, the model animation interface and the in-model calibration interface ~~adapted to use~~ using measurement and calibration technologies [[with]] in a host-target architecture, to communicate with a measurement and calibration interface on the target hardware forming a link between the application software on the target hardware and a host of the host-target architecture, [[a]] the host including at least one respective modeling tool and ~~on target software of the control system is executed~~ a target server adapted to connect the modeling tool with the target hardware.